

ABSTRACT OF THE DISCLOSURE

8/28/00
BKY

A thermokeratoplasty system ~~and method~~ for locally heating and reshaping a cornea in a manner that produces a minimal regression of the corneal correction. The system includes a probe that is coupled to a power source which can provide current at a predetermined power, frequency and time duration. The probe has a sharp tip that is inserted into the stroma of the cornea. The tip has an insulated stop that controls the depth of tip penetration. Current flows into the cornea through the probe tip to locally heat and denature the corneal tissue. The denatured tissue causes a subsequent shrinkage of the cornea. A pattern of denatured areas can be created around the cornea to correct the vision of the eye.